

4. (Twice Amended) An isolated nucleic acid molecule comprising at least 24 nucleotides that hybridizes to SEQ ID NO: 5 from nucleotides 15-1649, SEQ ID NO: 7 from nucleotides 15-1652, a complement of SEQ ID NO: 5 from nucleotides 15-1649, or a complement SEQ ID NO: 7 from nucleotides 15-1652 when hybridization is carried out at 65°C in 6x SSC, 1x Denhardt's solution, and 0.1% SDS, and washing at 65°C in 0.2x SSC, 1x Denhardt's solution, and 0.1% SDS.

5. (Amended) The nucleic acid molecule of claim 4, wherein the nucleic acid molecule comprises a nucleotide sequence that is identical to a segment comprising at least 25% of contiguous nucleotide bases of SEQ ID NO: 5 from nucleotides 15-1649, SEQ ID NO: 7 from nucleotides 15-1652, a complement of SEQ ID NO: 5 from nucleotides 15-1649, or a complement SEQ ID NO: 7 from nucleotides 15-1652. *409 cont.*

6. (Amended) An isolated nucleic acid molecule comprising a nucleic acid sequence that encodes a polypeptide comprising a sequence that is at least 95% homologous to SEQ ID NO:6 or SEQ ID NO:8.

7. (Amended) The isolated nucleic acid molecule of claim 3, encoding a polypeptide that is selectively bound by an antibody specific for a *Streptococcus pyogenes* Hsp60.

8. (Amended) An isolated nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide comprising a Streptococcal Hsp60 peptide consisting of at least 8 contiguous amino acids selected from amino acid residues 1-544 of SEQ ID NO: 6 and amino acid residues 1-545 of SEQ ID NO: 8, wherein the Streptococcal Hsp60 peptide binds to a major histocompatibility complex molecule.

B2 20. (Amended) The vector of claim 19, wherein the vector is an expression vector comprising a promoter operatively linked to the isolated nucleic acid molecule

Add new claims 32-39.

- 32. The nucleic acid molecule of claim 3, wherein the nucleic acid molecule comprises nucleotides 15-1649 of SEQ ID NO:5. X

33. The nucleic acid molecule of claim 3, wherein the nucleic acid molecule comprises nucleotides 15-1652 of SEQ ID NO:7.

34. The nucleic acid molecule of claim 6, wherein the polypeptide comprises SEQ ID NO:6. X

35. The nucleic acid molecule of claim 6, wherein the polypeptide comprises SEQ ID NO:8.

B3 36. The nucleic acid molecule of claim 8, wherein the Streptococcal Hsp60 peptide consists of at least 8 amino acids selected from amino acid residues 1-544 of SEQ ID NO:6. ✓

37. The nucleic acid molecule of claim 8, wherein the Streptococcal Hsp60 peptide consists of at least 8 amino acids selected from amino acid residues 1-545 of SEQ ID NO:8. ✓

38. The nucleic acid molecule of claim 6, wherein the polypeptide comprises an amino acid sequence that is at least 97% homologous to SEQ ID NO:6 or SEQ ID NO:8. ✓

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39. The nucleic acid molecule of claim 6, wherein the polypeptide comprises an amino acid sequence that is at least 98% homologous to SEQ ID NO:6 or SEQ ID NO:8 --